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L Number	Hits	Search Text	DB	Time stamp
1	631	tuber and starch and (isolating isolate isolated)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 09:20
2	5	(tuber and starch and (isolating isolate isolated)) AND HYDROCYCLONE	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 10:24
3	113	amylopectin and (tuber and starch and (isolating isolate isolated))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 09:26
4	3	"5824798" and pure	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 10:25
5	65	(amylopectin and (tuber and starch and (isolating isolate isolated))) and (pure purity)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 10:26
6	16	((amylopectin and (tuber and starch and (isolating isolate isolated))) and (pure purity)) and (seperate seperator centrifuge)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 10:26
7	20	((amylopectin and (tuber and starch and (isolating isolate isolated))) and (pure purity)) and (sieve sieving)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 11:31
8	337	amylopectin and "98" and pure	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 11:32
9	0	(amylopectin and "98" and pure) and centrifure	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 11:32
10	49	(amylopectin and "98" and pure) and centrifuge	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 11:32
11	17	((amylopectin and "98" and pure) and centrifuge) and wash	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 11:42
12	0	nl97/00285	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 11:43
13	0	nl97/00285.pct.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 11:43

14	1	$nl97/00285$	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 12:51
15	16712	mill and starch	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 12:59
16	372	(mill and starch) and tuber	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 12:59
17	0	((mill and starch) and tuber) and grate	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 13:00
18	133	(tuber and starch and (isolating isolate isolated)) and mill	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 13:01
19	59	((tuber and starch and (isolating isolate isolated)) and mill) and vacuum	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 13:03
20	0	(((tuber and starch and (isolating isolate isolated)) and mill) and vacuum) and grate	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 13:03
21	0	(((tuber and starch and (isolating isolate isolated)) and mill) and vacuum) and grating	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 13:03
22	0	(((tuber and starch and (isolating isolate isolated)) and mill) and vacuum) and grated	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 13:41
23	66	tuber and (starch same isolate)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 13:42
24	1792	drying adj tower	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 13:44
25	298	(drying adj tower) and starch	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 13:44
26	0	((drying adj tower) and starch) and (tuber and (starch same isolate))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 13:44
27	20	((drying adj tower) and starch) and amylopectin	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 14:16

28	1	3890888.pn. and (dry dryed drying)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 14:25
29	1	3890888.pn. and grinding	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 15:23
30	29	pure adj amylopectin	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/29 15:23

L8 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2002 ACS
AB Bacterial **isolates** from Tapioca cultivar soil were systematically identified. The effect of culture conditions and medium components on the prodn. of extracellular amylase and pullulanase by Micrococcus halobius OR-1 were investigated. Amylase and pullulanase activity in the cell-free supernatant reached a max. of 8.6 U/mL and 4.8 U/mL after 48 h, resp. The enzyme converted the complex polysaccharides **starch**, dextrin, pullulan, amylose and **amylopectin** predominantly into maltotriose. Saccharification of 15% cereal, **tuber starches** and root **starches** with the whole cultured cells (WCC) or cell-free supernatant (CFS) showed comparable and complete saccharification within 90 min. These saccharifying enzymes had a pH optimum of 8.0 and were stable over a broad pH range of 6-12. Thus the coexpressed physicochem. compatible extracellular amylase and pullulanase produced by the Micrococcus halobius OR-1 strain might have important value in the enzyme-based **starch** saccharification industry.

L8 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2002 ACS
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=> d 1-5 ti ab kwic

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ST Micrococcus alk amylase pullulanase **starch** saccharification

IT 9005-25-8, **Starch**, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(co-expression of saccharifying alk. amylase and pullulanase in Micrococcus halobius OR-1 isolated from tapioca cultivar soil)

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ST potato **tuber starch** synthase sequence

IT Deoxyribonucleic acid sequences
(for major **starch** synthase isoenzyme from potato)

IT Potato
Tuber (plant organ)
(major **starch** synthase in sol. fraction of potato **tubers**)

IT Protein sequences
(of major **starch** synthase isoenzyme from potato)

IT Organelle
(**starch** granule, **starch** synthase isoenzyme redn.

and effect on **starch** granule and amylose-to-**amylopectin** ratio in potato **tubers**)

IT 179734-85-1
RL: PRP (Properties)
(amino acid sequence; major **starch** synthase in sol. fraction of potato **tubers**)

IT 37292-82-3, **Starch** synthase
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(major **starch** synthase in sol. fraction of potato **tubers**)

IT 173758-43-5, GenBank X95759
RL: PRP (Properties)
(nucleotide sequence; major **starch** synthase in sol. fraction of potato **tubers**)

IT 9005-82-7, Amylose 9037-22-3, **Amylopectin**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(**starch** synthase isoenzyme redn. and effect on **starch** granule and amylose-to-**amylopectin** ratio in potato **tubers**)

L8 ANSWER 3 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

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IT Industry
starch industry

IT Miscellaneous Descriptors
enzyme coexpression; soils; sweeteners: production

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IT Sequence Data
amino acid sequence; molecular sequence data; EMBL-X95759
IT Miscellaneous Descriptors
COMPLEMENTARY DNA; MESSENGER RNA; **STARCH** GRANULE

L8 ANSWER 5 OF 5 MEDLINE
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CT . . .

ME, metabolism

Recombinant Proteins: CH, chemistry
Recombinant Proteins: IP, isolation & purification
Recombinant Proteins: ME, metabolism
Sequence Homology, Amino Acid
***Starch Synthase: CH, chemistry**
Starch Synthase: IP, isolation & purification
***Starch Synthase: ME, metabolism**

CN 0 (Antibodies); 0 (DNA, Complementary); 0 (RNA, Antisense); 0 (RNA, Messenger); 0 (Recombinant Proteins); EC 2.4.1.21 (**Starch** Synthase)